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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,559	02/19/2004	Eun-sang Park	45695	1712
1609	7590	10/17/2005		
ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			EXAMINER GLEITZ, RYAN M	
			ART UNIT 2852	PAPER NUMBER

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,559

Applicant(s)

PARK, EUN-SANG

Examiner

Ryan Gleitz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,10-20 and 23 is/are rejected.
- 7) ☒ Claim(s) 3-5,7-9,21 and 22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/26/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 6, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's admitted prior art in Figure 2 (Admission).

Admission discloses a developing unit of a wet electrophotographic printer, including a photoconductive drum (20); a developing roller (37); a cartridge (30) for storing a developer therein. Partition (33) is a developer guide disposed at a predetermined distance away from an inner wall of the cartridge, and having a developer supplying path defined therein to guide the developer in the cartridge to the developing roller (37). A developer pump (34) is disposed in the cartridge to pump up the developer in the cartridge toward the developing roller (37).

Regarding claim 2, a deposit roller (36) is for transferring a developer onto the developing roller (37), wherein a deposit nip is defined between the developing roller and the deposit roller.

Regarding claim 6, the developer pump (34) includes a pumping roller which is made of a sponge material and mounted to contact with the lower part of the developer guide (33).

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Regarding claim 10, a cleaning roller (38) is for removing the developer remaining on the developing roller (37) in contact with the developing roller, wherein the developer which is removed from the developing roller (37) by the cleaning roller (38) is moved into a space defined between the inner wall of the cartridge and the developer guide.

Claims 1, 11, 16-19, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Maiefski et al. (US 5,153,659).

Maiefski et al. disclose a developing unit of a wet electrophotographic printer, including a photoconductive drum (13); a developing roller (20) for attaching a developer onto the photoconductive drum (13); and a cartridge for storing a developer therein.

Supply duct (32) is a developer guide disposed at a predetermined distance away from an inner wall of the cartridge, and having a developer supplying path defined therein to guide the developer in the cartridge to the developing roller (20).

Pump (40) and/or pumping drive roll (30) col. 4, line 22, reads on a developer pump disposed in the cartridge to pump up the developer in the cartridge toward the developing roller (20).

Regarding claim 11, a first partition (45) contacting with an upper wall thereof with a deposit roller (20); and a second partition (47) disposed near to the inner wall of the cartridge to form a developer supplying path (32) in cooperation with the first partition.

Regarding claim 16, the developer guide is disposed at a predetermined distance away from an inner wall of the cartridge.

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Regarding claim 17, the frame of the apparatus is a connecting means for connecting the first partition (45) and the second partition (47) which are integrally mounted in the cartridge, respectively.

Regarding claim 18, the first partition (45) and the second partition (47) are capable of being separately mounted in the cartridge.

Regarding claim 19, a developer pump (40) is disposed in the cartridge to pump up the developer in the cartridge toward the developing roller (30).

Regarding claim 23, the lower part of the first partition (45) is positioned higher than the lower part of the second partition (47).

Claims 11-19 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Landa et al. (US 2004/0175206).

Landa et al. disclose a developer guide including a first partition (20) contacting with an upper wall thereof with a deposit roller (22); and a second partition (18) disposed near to the inner wall of the cartridge to form a developer supplying path in cooperation with the first partition (20).

Regarding claim 12, a deposit nip defined between the developing roller (30) and the deposit roller (22).

Regarding claim 13, the upper part of the first partition (20) is positioned lower than the deposit nip.

Regarding claim 14, the upper part of the second partition (18) is positioned higher than the deposit nip.

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Regarding claim 15, overflow from the deposit nip would naturally fall to a developer collecting path defined between the second partition (18) and the inner wall of the cartridge.

Regarding claim 16, the developer guide is disposed at a predetermined distance away from an inner wall of the cartridge.

Regarding claim 17, a connecting means (no reference numeral assigned; see connection point just below roller 40) for connecting the first partition (20) and the second partition (18) which are integrally mounted in the cartridge, respectively.

Regarding claim 18, the first partition (20) and the second partition (18) are capable of being separately mounted in the cartridge.

Regarding claim 19, the developer is forced by pressure through the passage, which reads on a developer pump disposed in the cartridge to pump up the developer in the cartridge toward the developing roller.

Regarding claim 23, the lower part of the first partition (20) is positioned higher than the lower part of the second partition (18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maiefski et al. (US 5,153,659) in view of Applicant's admitted prior art in Figure 2 (Admission).

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Maiefski et al. disclose the developer guide above including a pumping roller but do not disclose sponge pumping roller.

However, Admission discloses a pumping roller (140) made of a sponge material and mounted to contact the developer guide.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the pumping roller of Maiefski et al. with the sponge pumping roller of Admission as an equivalent means to pump developer along the supplying path to the developing roller.

Allowable Subject Matter

Claims 3-5, 7-9, 21, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Park (US 2004/0146317) disclose a developer guide with a partition and a sponge pumping roller.

Kusayanagi (US 6,317,578) discloses a developer guide having first and second partitions.

Lloyd (US 4,733,273) discloses a developer guide, two partitions, and a developer pump.

Itaya et al. (JP 2001-005297) disclose a developer guide formed of two partitions and pump rollers.

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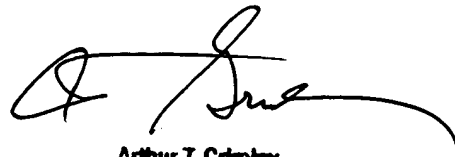
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Gleitz whose telephone number is (571) 272-2134. The examiner can normally be reached on Monday-Friday between 9:00AM and 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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